



The reACT₂ant

Winter
2010

Volume 17 Issue #2

The executive board and the Regional Directors have been working to get ACT₂ tax status changed from 501 e to 501(c)(3) We have most of the paperwork done but must add one article to the by-laws that states how the funds of ACT₂ will be handled if ACT₂ ever ceases to exit. The change must be posted 2 times in the newsletter and then voted on. The new article follows:

ARTICLE VI. DISSOLUTION

SECTION 1-

- Upon dissolution, the remaining assets will be distributed to the 501(c)(3) Science Teachers Association of Texas organization.

SECTION 2-

File articles of dissolution with the Secretary of State's Office, in accordance with Article 1396-6.05 of the Texas Non-Profit Corporation Act ("TNPCA").

SECTION 3-

The Executive Board and Regional Directors will adopt a resolution recommending that ACT₂ be dissolved, and directing that the question of such dissolution be submitted to a vote at a meeting of members having voting rights. The vote must be 2/3 in favor of dissolution.

Let us know what you think at:

[Click here to take survey](http://www.surveymonkey.com/s/XFLNVDQ)

The next posting will be in February in a mini Reactant. The board also worked on planning the Biennial Conference in Katy where Dr. Diana

Mason and Dr. Debbie Koeck plan to present on the new TEKS and EOC.

If you want to present, fill out the presenters page or go to ACT₂ webpage and sign up.

Barbara Schumann's husband Paul has set up a special networking site for ACT₂ at <http://act2network.ning.com>. You need to join, but we can post presentations from CAST, biennial etc. here. This will be a scrapbook for the future. Please join this group to get updates, the newsletter, and education news from the state.

Have a great spring, Meg Young



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Nominate a fellow teacher for the Teacher of the Year Award. This award will be given out at the Biennial Conference.

Be sure to keep your email address current with Bob Casao so the science updates and news comes to you. If your school has a spam filter, you may want to get a gmail address so news comes through.

ChemEd 2011 will be at Western Michigan in Kalamazoo on July 24-28, 2011.

THE NEWSLETTER IS TRYING TO GO GREEN . If the newsletter came through, let me know. I WANT TO SEND THE NEWSLETTER VIA EMAIL. MANY SCHOOL EMAILS ARE BLOCKED SO I NEED A HOME EMAIL. PLEASE CONSIDER GETTING A GMAIL ACCOUNT SO I CAN SEND THE NEWSLETTER AS A PDF TO YOU. SEND YOUR EMAIL TO megyoun@gmail.com

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the reACTant Volume 16, Number 1 The reACTant is the official newsletter of the Associated Chemistry Teachers of Texas (ACT₂) and is published three times a year. The information published is copyrighted to ACT₂ unless otherwise noted. Permission is granted to teachers to reproduce for classroom use. All others should contact ACT₂.

Cast presentations from 2009 are found on Efren Rodriguez's page : <http://sites.google.com/site/mychemistry/Home/teacher-page>

CAST 2010

Science in the City

CAST 2010 is being held from November 11 through 13 in Houston, Texas in the George R. Brown Convention Center.

ACT2 Members

Needed to Run For Office.

President-elect, Secretary, Treasurer

Contact: Dale Moore at

dmoore03@sbcglobal.net

Help keep the organization strong. Please volunteer. Elections during the Biennial Conference 2010 in Katy.



ASM Materials Camp

Apply soon for camps in 2010

List of camps and application at

<http://asmcommunity.asminternational.org/portal/site/www/Foundation/Educators/TeachersCamp/>

This is a great program and for the most part free. There is a camp in Houston—check it out.

Earth day 2010: <http://www.earthday.net/node/122>

Mole Day 2010: Moles of the Caribbean

National Chemistry Week: October 17 – 23, 2010

Theme: "Behind the Scenes with Chemistry"

The $_{20}\text{Ca}_{10}\text{Ne}$ Roundup

21st Biennial Conference on Chemical Education A New Decade for Opportunity

www.bcce2010.org

August 1-5, 2010

University of North Texas, Denton, TX

The 21st Biennial Conference on Chemical Education (BCCE) will be held August 1-5, 2010 at University of North Texas, Denton, TX. Sponsored by the ACS Division of Chemical Education, BCCEs are the largest gathering of chemical educators in the world. The Department of Chemistry at the University of North Texas is celebrating its Centennial and is proud to host the 21st BCCE. BCCEs are designed for the broad ChemEd community of researchers and practitioners from all academic levels (pre-college to college). If you've never attended one, now is the time! The conference emphasizes the improvement of chemical education, relates modern developments in chemistry to classroom instruction, and is highly respected in the broader international education community. Come on down and enjoy some good ol' Texas hospitality in Denton, Texas!

Important Deadlines

Abstract submissions open: November 21, 2009 to February 12, 2010

Registration opens: March 2, 2010

Confirmed plenary speakers

Dr. Nizam Peerwani, Forensic Pathologist, Chief Medical Examiner for Tarrant and Denton Counties, Texas

Dr. Kent Kirschenbaum, Molecular Gastronomy, New York University

Representative symposia (Check out the Website to see more!)

Chemical Education Around the World

Cognition in Chemistry Education

Food and Cooking in the Chemistry Curriculum

From Educator to Advisor, The Multiple Facets of Academic Positions

Interviews as a Data Collection Method

Out of the Box: Teaching Chemistry with Case Studies and Applications

Research in Effectiveness of Active Learning Pedagogies

Survivor Skills for 1st to 5th year Chemistry Teachers

Using Laptop/Cell Phone Student Response Systems to Enhance Group Learning Activities

Call for Abstract Submissions

The 21st BCCE 2010 will focus on a wide range of critically important issues in chemical education that address the complex and subtle relationships of teaching, learning and research with particular focus on what will be happening in the next decade. You do not have to be a member of the ACS or DivCHED to attend or present at the BCCE, but you do need to register! To receive the most current information and deadline notifications relating to the Conference, please join the 21st BCCE listserv by adding your name to our list at: <http://chemed.tamu.edu/bcce2010>.

Conference Registration (Early registration begins March 2, 2010.)

Early registration fees:

General registration is \$250

Pre-college teacher is \$200

Graduate student is \$125.

At the close of early registration a \$50 fee will be added to all non-student categories.

Housing

For various housing selections, check out the Website. There are several options for on and off-campus that range in price to accommodate most budgets.

If you're wantin' to learn to talk Texan, jist come on down and get a li'l edu-ma-cation. We'd love to have y'all visit. Don't forget your passports and git ready to raise a little CaNe in Texas!

Texas College and Career Readiness Chemistry/Mathematics Symposium II

Team up to Tackle the TEKS

If you're a chemistry teacher, bring a math teacher; if you're a math teacher, bring a chemistry teacher to either Round Rock or Dallas, on February 13, to tackle the recent changes in the chemistry TEKS that mandate the use of more mathematics.

In response to the survey from the first CCRS Symposium (summer 2009), your request for more in depth exploration of the alignment between the TEKS and CCRSs is going to be honored. Team up to tackle the top 6 new required calculations at Symposium II. These pivotal concepts will be addressed in a collaborative format with teachers of mathematics and chemistry attending a videoconference exchange between participants at Texas State University—Round Rock and the University of North Texas—Dallas. Attend so that you are prepared to teach the additional mathematical concepts of the revised Chemistry TEKS by fall 2010.

Registration Website: <http://www.surveymonkey.com/s/HT8M5SP>

When: Saturday, February 13, 8:00 AM to 4:00 PM

Where: Round Rock Higher Education Center, 1555 University Blvd.
UNT, Dallas, 7300 Houston School Road

Stipend: \$75

Agenda

8:00 – 8:30 AM	Registration and breakfast
8:30 – 9:30 AM	Keynote Address, Dr. Deborah Koeck
9:30 – 10:00 AM	Break
10:00 – 11:00 AM	Breakout 1: Dimensional Analysis
	Breakout 2: Stoichiometry and Moles
	Breakout 3: Molecular Geometry and VSEPR
11:00 – Noon	Discussion Exchange between sites
Noon – 1:30 PM	Lunch
1:30 – 2:30 PM	Breakout 4: Wavelength, Frequency, and Energy
	Breakout 5: Concentration, Dilution, and pH
	Breakout 6: Oxidation-Reduction (beyond corrosion)

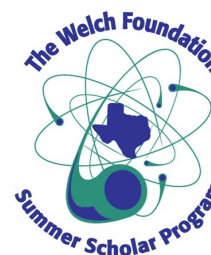
The Welch Summer Scholar Program 2010 Program Dates: June 8th-July 9th

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The Welch Summer Scholar Program is a scholarship program funded by the Welch foundation to provide a 5-week university research experience to high school juniors and seniors who show promise in the field of Chemistry.

Applications are now being accepted through February 26th, 2010. Find out more information by visiting us at <http://wssp.cm.utexas.edu/WSSPapply.html>



CLAUDIA WALLACE WINS 2009 SCHULZ AWARD

This year's winner, Claudia Wallace of Creekview High School in Carrollton, is the 17th winner of the Schulz award. The future hanging of her picture in the Gallery of Schulz Award winners at Tarleton will have particular resonance for Claudia, as she is a Tarleton alum.

Claudia has worked long and hard to hone her teaching skills and knowledge base. She has attended more than 45 state and national conferences to expand her toolbox of teaching strategies. She has shared this knowledge by presenting over 20 workshops. In 2001 she received the Outstanding Chemistry Teacher Award from the Associated Chemistry Teachers of Texas (ACT2), the award now known as the George Hague Award. After all these years of teaching, she still loves her job and likes her kids. She says there is nothing as rewarding as seeing the light bulb come on when her students catch on to a difficult concept.



<http://misterguch.brinkster.net/morecoolstuff.html>

If you've spent any time at all on this site, you know that I'm committed to giving out the very best free stuff to teachers. It's with this in mind that I'm pleased to present the following resources as a big cool (free) package:

My complete lecture notes for an entire year of general chemistry (with comments about how to alter it for my honors classes). If you're just getting started or if you're curious about how I teach something, find out now!

Previously unreleased labs! 27 labs from my secret files that have never yet seen the light of day. This includes combination lecture/labs/practice problem packets that are used to teach those last final topics before the end of the school year.

Previously unreleased worksheets and rubrics! Yep, there's even more that's not already on the website – check out 37 of the sheets that keep my class humming!

Previously unreleased files to make life easier for the new teacher! Nine files of various sorts that can help out teachers with the start of the year, with doing labs, with calculating percentages, and other stuff. These files are included into the folders for the labs and worksheets described above, depending on where they seem to fit best.

All of the books on this website: [24 Lessons That Rocked The World](#), [17 Effective Activities for New Chemistry Teachers](#), & [The Complete Book of Chemistry Quizzes and Practice Problems \(Vol. 1\)](#).

An updated version of [The Complete Book of Chemistry Quizzes and Practice Problems](#), including everything that was available in the original as well as previously unreleased quizzes and practice problems that didn't make it into Volume 1.

There are two ways to get this stuff:

1) Send me a flash drive or SD card and get these for FREE!

Send me a self-addressed and stamped envelope along with either an empty SD card or USB flash drive and I'll copy this stuff onto it and send it back to you, absolutely **FREE!** The details:

- My mailing address is Ian Guch, 6624 Cavalier Drive, Alexandria, VA 22307, USA. The return shipping is \$0.61 within the United States and its territories. If you don't live within the US, I'm sorry, but you'll have to use method 2 below.
- Make sure your flash drive or SD card are completely empty before you send them to me, because I will reformat them before using to ensure that my computer doesn't pick up any viruses. Frankly, I'd really appreciate it if you'd format them *before* sending them to me just to make sure!
- If you *want* to include money or additional stamps so that I may send flash drives of these files to teachers in underserved areas, I would certainly appreciate it. After all, my goal is to make sure that everybody gets their hands on my stuff. However, this is definitely not a requirement, so please don't feel like you have to do so.

2) Send me \$5 and I'll send you all of this, preloaded on a brand new USB flash drive. In

case you were wondering, the \$5 pays for the flash drive, the postage, and the shipping supplies. I'm not making any money from this. Those of you who have been around the site for the last decade know that it's not a business, and I'm truly interested in making sure everybody gets good chemistry stuff.

CHEMISTRY MNEMONICS

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A list compiled by Todd Abronowitz
madchemist@2guysofscience.com

NOMENCLATURE

“Swap and drop” for the “criss-cross” method of the charge of the anions and cations

cations—positive ions

often metals since metals *lose* electrons to become positively charged

minus a negative charge [i.e. lose electrons (negative charge)] = positive charge ion

cation has a “+” (okay, so it is the t) in the middle of it and must be positively charged.

anions—negative ions

often nonmetals since nonmetals *gain* electrons to become negatively charged

add a negative charge (adding electrons which have a neg. charge) = negative charge ion

anion has two “n” so must be really negative.

“Belly button” method of remembering the number of oxygen atoms on the oxyanions:

Tell the students that there are two types of people in the world... “innies” and “outies” and than tell them that there are two types of “-ate” ions, “innie-ates” and “outie-ates”. Show them a periodic table and point out the following:

The diagram shows a portion of the periodic table with elements B, C, N, O, F, Si, P, S, Cl, As, Se, Br, Sb, Te, and I. Two callout boxes provide mnemonic information:

- Innie-ates:** These are the “innie-ates” all have four oxygens. Examples: phosphate PO_4^{3-} , sulfate SO_4^{2-} .
- Outie-ates:** Everything on the outside (B, C, N, F, Cl, Br, and I) are the “outie-ates” and will have three oxygen atoms on the “-ate” anion. Examples: chlorate ClO_3^{-1} , nitrate NO_3^{-1} , carbonate CO_3^{2-} , iodate IO_3^{1-} .

Specific heat problems

Write in the form so you can say “q = m—cat” for $q = mc\Delta T$

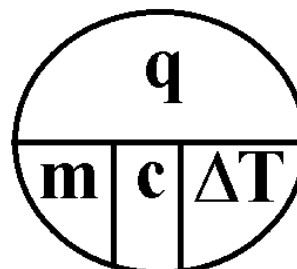
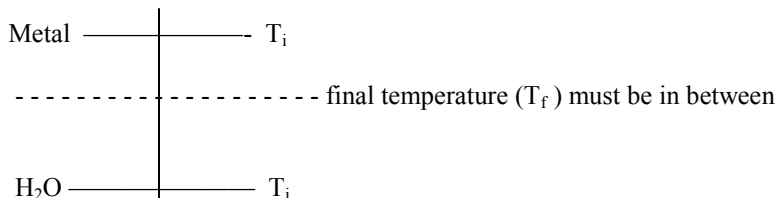
Delta T

Use the alphabet: a b c d e **F** g h **I**, so since **F** comes before **I**, then “Tf” before “Ti”

$$\Delta T = T_f - T_i$$

Draw the following to help students on specific heat problems.

Cover the variable you are solving for to find the equation needed.



Try this website for lab simulations. <http://www.learningscience.org/> Just click on the physical science button.

Molecular Animations

<http://workbench.concord.org>

There are over 100 molecular animations available on a variety of topics. Some can be assigned as out of class assignments because they have questions that have to be answered and at the end the student can print their answers. You could make your own worksheet for them to answer as they work thru the simulations.

Dispel CHEMOPHOBIA:

<http://sites.google.com/site/chemistrydemos/Home>

This site is from Andy Sae and has many of his demos from the grocery store plus background information.

UNIT 5

<http://www.unit5.org/chemistry>

The teachers at this high school share the curriculum they have developed with teachers through the website and through a CD you can request. They have some very good worksheets on stoichiometry and limiting reactants viewed from the molecular level.

Chem Lessons from SMILE (Science & math Initiative for Learning Enhancement)

www.iit.edu/~smile.cheminde.html

ChemTeam

<http://www.chemteam.info/ChemTeamIndex.html>

Chem Team has updated this website and has included videos of how to solve problems in each topic area. The videos are not block by my school server which is a big plus.

Chemistry/Physical Science Activities (grades 7-10)

http://mhs.marbleheadschoools.orggreenmanProf_Development_Page#Chemistry

There are approximately 20 files on physical properties and an additional 20 files on chemical properties/reactions. Many of these files are copyrighted and you are not given permission to use these files financial gain. Our intent is to make it as easy for you as possible to use these files for promoting excellence in science teaching and learning in your classroom. These activities were developed as part of a Massachusetts Dept of Elementary and Secondary Educational Laboratory Based Chemistry Content Institute. Look in the Experiment Files under chemistry institute.

Flinn eLearning Videos: Effective immediately, Flinn Scientific has reduced the price of viewing to \$5.95 for 60 days. The samples are great so check them out.

SEMTCO: <http://www.semcto.com/share.html>

This is the group bringing us the next ChemEd. Check out the information on their webpage.



**An ACT₂ Event – The Biennial
Conference
A Kaleidoscope of Chemistry in
Katy
June 28 – July 1, 2010**

What an opportunity! The Associated Chemistry Teachers of Texas hosts a Biennial Conference every other summer to allow a time for sharing and advancing ideas for quality chemical education in Texas. Next summer our conference will be held in Katy, Texas; which is just west of Houston. If you haven't attended an ACT₂ event before, this is your chance; if you have attended then you're already excited and looking forward to this one of a kind conference. Check out just a few of the several reasons to attend our Kaleidoscope of Chemistry:

- K – Katy, Texas – Home of Champions – also the symbol for Potassium!
- A – Art and Chemistry connections
- L – Lots of Chemistry Teachers and Chemistry Fun!!!!
- E – Extraordinary friendships
- I – Intimate setting – If you're looking for something that's not so overwhelming, but still helpful, this is your place!
- D – Discounts for Presenters!
- O – Opportunities to share and learn in an intimate setting
- S – Scholarships available!
- C – Chemistry, Chemistry, Chemistry!
- O – Over the top silent auction event!
- P – Plenty of sessions to attend
- E – Excitement and Theme Days!

Highlights to include:

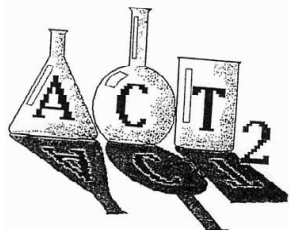
- | | |
|-------------------------------------|--|
| Nationally known dynamic presenters | George Hague Memorial Ice Cream Social |
| Chemistry and Art sessions | Mole Stroll |
| Lots of Sessions | Banquet at the Swingin' Door |
| Discounts for Presenters | Silent Auction |

Registration and Presentation Proposal form will be available in Mid-January on the ACT₂ Website, <http://www.statweb.org/ACT2/>.

TAKS Tests were released this year and can be found at

http://www.tea.state.tx.us/index3.aspx?id=3839&menu_id3=793

I was surprised when I went to download this years test that more 2006 tests have been released. You might want to check it out.



**Kaleidoscope of Chemistry
2010 ACT₂
Biennial Conference
June 28- July 1, 2010
Katy High School
6331 Hwy. Blvd. Katy, TX 77494**



Presentation Form – Due By June 1, 2010 (Tuesday)
Presentation Handouts – e-copy Due by June 11, 2010 (if you want copies)
e-copy Due by June 18, 2010 (if no copies wanted)

To complete the form:

Type the information on the form, save, and e-mail the form as an attachment to
biennial2010@gmail.com.

Complete one form for each presentation. If there is more than one presenter, designate one person to complete the form and list the other presenters as the co-presenters. The presenter completing the form will be the contact point.

Presentation handouts submitted to biennial2010@gmail.com by June 11th will have copies provided for the session. A confirmation with final instructions will be sent before the conference.

Name: [Click here to enter text.](#)

Last

First

Home Address: [Click here to enter text.](#)

City: [Click here to enter text.](#)

State: [Click here to enter text.](#)

Zip: [Click here to enter text.](#)

Home Phone: [Click here to enter text.](#)

Home e-mail: [Click here to enter text.](#)

School Address: [Click here to enter text.](#)

City: [Click here to enter text.](#)

State: [Click here to enter text.](#)

Zip: [Click here to enter text.](#)

Position: [Click here to enter text.](#)

School email: [Click here to enter text.](#)

School Phone: [Click here to enter text.](#)

Type of Session:

_____ Workshop 30 minutes

_____ Workshop 70 minutes

A workshop should actively involve the audience in a hands-on experience. Handouts are required. Please e-mail a copy of your presentation handouts to biennial2010@gmail.com by June 11th.

_____ Demonstration 30 minutes

_____ Demonstration 70 minutes

A demonstration session should include a series of experiments or demonstrations to illustrate scientific phenomena. Handouts are required. Please e-mail a copy of your presentation handouts to biennial2010@gmail.com by June 11th.

_____ Lecture/Discussion 30

_____ Lecture/Discussion 70 minutes

A lecture/discussion presentation provides an opportunity to orally share teaching ideas or information. Handouts are suggested. Please e-mail a copy of your presentation handouts to biennial2010@gmail.com by June 11th.

_____ Share-A-Thon

A "Share-A-Thon" is a chance to share and receive 3 minute teaching tip/lab/activity/demonstration or anything else. Please send your master electronically by June 11th so that it may be included on participants' flash drives to the following e-mail address biennial2010@gmail.com **with the subject line "Share-a Thon"**. Participating only in the Share-A-Thon does not qualify you for the discounted registration fee.

_____ If none of these categories correctly describes what you would like to do, please let us know what you would like to do and how much time you will need. We will try to accommodate you.

Abstract and Equipment Request:

Type your title and abstract in the space below. If you e-mail presentation handouts to biennial2010@gmail.com by June 11th, copies of your handouts will be provided for your session. A confirmation e-mail with final instructions will be sent before the conference.

Title:

Abstract:

_____ if you are willing to present this session twice. You will be notified by e-mail if the session is scheduled twice.

Equipment Request, Check all that apply.

Please be as specific as possible when describing needed equipment. A follow up e-mail will be sent if we need to clarify the supplies requested.

- | | |
|---|--|
| _____ Classroom | _____ Large Lecture Room |
| _____ Laboratory | _____ Computer Room with Office Software |
| _____ Internet Access | _____ Power Strip |
| _____ Extension Cord | |
| _____ Water | _____ Fume Hood |
| _____ Gas | _____ VCR/DVD player |
| _____ Overhead Projector | _____ Cassette Tape Player |
| _____ LCD Projector | |
| _____ Computer cart: 15 notebook PC's with Logger Pro and office software are available | |

List Vernier Probes:

List all other equipment needs including laboratory glassware: [Click here to enter text.](#)

Chemicals: You are expected to bring your own chemicals unless there are extenuating circumstances. List **only** the chemicals you will need the conference to provide in the space below.

_____ I will need more than 5 - 10 minutes to set up or take down materials.

_____ I will need assistance to set up and take down materials for my session.

Safety:

1. Identify any potential safety hazards associated with your presentation below.

Hazards: [Click here to enter text.](#)

2. What precautions will be taken during the presentation to deal with these hazards and to inform the audience?

Precautions: [Click here to enter text.](#)

3. What safety equipment will be required? (Please specify what equipment you will be providing and what equipment you need ACT₂ to provide.)

Safety equipment: [Click here to enter text.](#)

Check here: I have reviewed a copy of the NSTA Minimum Safety Guidelines (at <http://ecommerce.nsta.org/>



2

Associated Chemistry Teachers of Texas MEMBERSHIP APPLICATION

(Current members should use this form to update information)

☐ NEW OR ☐ RENEW Date _____

Name _____
First Middle Last

E-Mail Address _____

School District _____ I.S.D. ESC Region _____

School Name _____ **STAT Member** ☐ Yes
☐ No

Home Address (where mail can be sent even during the summer)

Street City State Zip

Phone Numbers (include area codes)

() _____ () _____ () _____
Home School FAX

reACTant Info: (How would you like to receive the newsletter?)

☐ Electronic copy via Internet ☐ Hard copy via US mail

Job Description:

(Check all that apply)

- ☐ Teacher/Professor
☐ Department Head
☐ Principal
☐ Supervisor

Other _____

Job Location:

- ☐ High School
☐ Two-Year College
☐ University
☐ Other _____

Dues:

\$10.00 ☐ One Year Member, ACT₂
\$20.00 ☐ Two Year Member, ACT₂

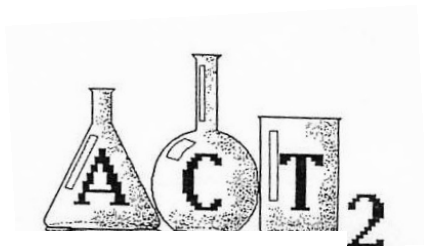
TOTAL PAID \$ _____

Make check payable to ACT₂

**Mail to: Jo King, ACT₂ Treasurer
6003 Jameson Rd.
Amarillo, TX 79106**

For Office Use Only

Date Received _____
Cash _____ or Check # _____
Check Date _____
Account Name _____
New Due Date _____



Associated Chemistry Teachers of Texas

Meg Young, Editor

118 Monticello Dr.

Mansfield, TX 76063

Dated Material

Please Do Not Delay

Check your Dues Date!

It if has expired, this is your last issue!!

Use application form to update your membership information.

Corporate Sponsors:

Flinn Scientific, Inc.

P.O. Box 219

Batavia, IL 60510

www.flinnsci.com

To become an official ACT₂ corporate sponsor, contact the editor at meg_young@hotmail.com.

ACT₂ also accepts advertisements in our newsletter. Our ad rates are \$100 for a full page, \$60 per half page, and \$30 per quarter page.

We look forward to hearing from companies and individuals who are interested in supporting our organization of over 700 active members.

In the next issue???

*If you have something you'd like to share or
that you think should be in the reactant—*

send it!

Hard copy—OK E-mail—better!

*Suggestions are always welcome at:
meg_young@hotmail.com*